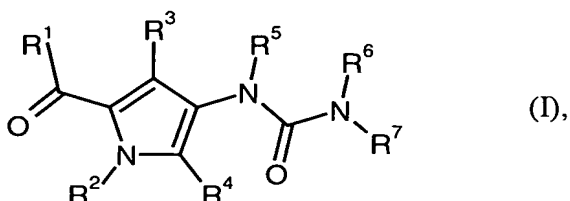


Claims

1. A compound of the formula



5 in which

R^1 is $-OR^8$ or $-NR^9R^{10}$,

R^2 is hydrogen, C_1 - C_6 -alkyl or aryl,

10 it being possible for alkyl R^2 to be substituted by 0, 1, 2 or 3 substituents R^{2-1} selected independently of one another from the group consisting of halogen, hydroxyl, C_1 - C_6 -alkoxy, hydroxycarbonyl, C_1 - C_6 -alkoxycarbonyl, C_1 - C_6 -alkylcarbonyloxy, amino, C_1 - C_6 -alkylamino, aminocarbonyl, C_1 - C_6 -alkylaminocarbonyl, C_3 - C_8 -cycloalkyl, 5- to 10-membered heterocyclyl, C_6 - C_{10} -aryl, phenoxy and 5- to 10-membered heteroaryl,

15 in which cycloalkyl, heterocyclyl, aryl or heteroaryl R^{2-1} may be substituted by 0, 1, 2 or 3 substituents selected independently of one another from the group consisting of halogen, hydroxyl, oxo, nitro, cyano, trifluoromethyl, trifluoromethoxy, C_1 - C_6 -alkyl, C_1 - C_6 -alkoxy, hydroxycarbonyl, C_1 - C_6 -alkoxycarbonyl, amino, C_1 - C_6 -alkylamino, aminocarbonyl, C_1 - C_6 -alkylaminocarbonyl and phenyl,

20 it being possible for aryl R^2 to be substituted by 0, 1, 2 or 3 substituents R^{2-2} selected independently of one another from the group consisting of halogen, hydroxyl, nitro, cyano, trifluoromethyl, trifluoromethoxy, C_1 - C_6 -alkyl, C_1 - C_6 -alkoxy, hydroxycarbonyl, C_1 - C_6 -alkoxycarbonyl, amino, C_1 - C_6 -alkylamino, aminocarbonyl, C_1 - C_6 -alkylaminocarbonyl, C_3 - C_8 -cycloalkyl, 5-

to 10-membered heterocyclyl, C₆-C₁₀-aryl and 5- to 10-membered heteroaryl,

R³ and R⁴ independently of one another are hydrogen or C₁-C₆-alkyl,

R⁵ and R⁶ independently of one another are hydrogen or C₁-C₆-alkyl,

5 R⁷ is 3- to 12-membered carbocyclyl,

it being possible for the carbocyclyl to be substituted by 0, 1, 2, 3, 4 or 5 substituents selected independently of one another from the group consisting of halogen, hydroxyl, C₁-C₆-alkyl and C₁-C₆-alkoxy,

R⁸ is hydrogen or C₁-C₆-alkyl,

10 it being possible for alkyl R⁸ to be substituted by 0, 1, 2 or 3 substituents R⁸⁻¹ selected independently of one another from the group consisting of hydroxyl, amino, C₁-C₆-alkoxy, C₁-C₆-alkylamino, aminocarbonyl, C₁-C₆-alkylcarbonylamino, C₃-C₈-cycloalkyl, 5- to 10-membered heterocyclyl, C₆-C₁₀-aryl and 5- to 10-membered heteroaryl,

15 in which cycloalkyl, heterocyclyl, aryl or heteroaryl R⁸⁻¹ may be substituted by 0, 1, 2 or 3 substituents selected independently of one another from the group consisting of halogen, hydroxyl, nitro, cyano, C₁-C₆-alkyl, C₁-C₆-alkoxy, hydroxycarbonyl, C₁-C₆-alkoxycarbonyl, amino, C₁-C₆-alkylamino, aminocarbonyl and C₁-C₆-alkylaminocarbonyl,

20 R⁹ is hydrogen or C₁-C₆-alkyl,

it being possible for alkyl R⁹ to be substituted by 0 or 1 substituent R⁹⁻¹ selected from the group consisting of hydroxyl, C₁-C₆-alkoxy, hydroxycarbonyl, C₁-C₆-alkoxycarbonyl, amino, C₁-C₆-alkylamino, aminocarbonyl, C₁-C₆-alkylaminocarbonyl, C₃-C₈-cycloalkyl, 5- to 10-
25 membered heterocyclyl, C₆-C₁₀-aryl and 5- to 10-membered heteroaryl,

in which cycloalkyl, heterocyclyl, aryl or heteroaryl R⁹⁻¹ may be substituted by 0, 1, 2 or 3 substituents selected independently of one another from the

group consisting of halogen, hydroxyl, nitro, cyano, C₁-C₆-alkyl, C₁-C₆-alkoxy, hydroxycarbonyl, C₁-C₆-alkoxycarbonyl, amino, C₁-C₆-alkylamino, aminocarbonyl and C₁-C₆-alkylaminocarbonyl,

and

5 R¹⁰ is hydrogen, C₁-C₆-alkyl, C₃-C₈-cycloalkyl, 5- to 10-membered heterocyclyl, C₆-C₁₀-aryl or 5- to 10-membered heteroaryl,

10 it being possible for alkyl R¹⁰ to be substituted by 0, 1, 2 or 3 substituents R¹⁰⁻¹ selected independently of one another from the group consisting of halogen, hydroxyl, C₁-C₆-alkoxy, hydroxycarbonyl, C₁-C₆-alkoxycarbonyl, amino, C₁-C₆-alkylamino, aminocarbonyl, C₁-C₆-alkylaminocarbonyl, C₃-C₈-cycloalkyl, 5- to 10-membered heterocyclyl, C₆-C₁₀-aryl and 5- to 10-membered heteroaryl,

15 in which cycloalkyl, heterocyclyl, aryl or heteroaryl R¹⁰⁻¹ may be substituted by 0, 1, 2 or 3 substituents selected independently of one another from the group consisting of halogen, hydroxyl, oxo, nitro, cyano, trifluoromethyl, trifluoromethoxy, C₁-C₆-alkyl, C₁-C₆-alkoxy, hydroxycarbonyl, C₁-C₆-alkoxycarbonyl, amino, C₁-C₆-alkylamino, aminocarbonyl and C₁-C₆-alkylaminocarbonyl,

20 it being possible for cycloalkyl, heterocyclyl, aryl or heteroaryl R¹⁰ to be substituted by 0, 1, 2 or 3 substituents R¹⁰⁻² selected independently of one another from the group consisting of halogen, hydroxyl, nitro, cyano, trifluoromethyl, trifluoromethoxy, C₁-C₆-alkyl, C₁-C₆-alkoxy, hydroxycarbonyl, C₁-C₆-alkoxycarbonyl, amino, C₁-C₆-alkylamino, aminocarbonyl and C₁-C₆-alkylaminocarbonyl,

25 or

R⁹ and R¹⁰ together with the nitrogen atom to which they are attached form a 4- to 8-membered heterocycle which may contain up to two further heteroatoms from the series N, O and/or S,

it being possible for the heterocycle to be substituted by 0, 1, 2 or 3 substituents selected independently of one another from the group consisting of halogen, hydroxyl, C₁-C₆-alkyl, C₁-C₆-alkoxy, hydroxycarbonyl, C₁-C₆-alkoxycarbonyl, amino, C₁-C₆-alkylamino, aminocarbonyl and C₁-C₆-alkylaminocarbonyl,

or one of their salts, their solvates or the solvates of their salts.

2. The compound of claim 1, characterized in that

R¹ is -OR⁸ or -NR⁹R¹⁰,

R² is hydrogen or C₁-C₄-alkyl,

it being possible for alkyl R² to be substituted by 0 or 1 substituent R²⁻¹ selected from the group consisting of hydroxyl, C₁-C₆-alkoxy, C₁-C₆-alkylcarbonyloxy, C₁-C₆-alkylaminocarbonyl, C₃-C₇-cycloalkyl, 5- to 6-membered heterocyclyl, phenyl, phenoxy and 5- to 6-membered heteroaryl,

in which cycloalkyl, heterocyclyl, phenyl or heteroaryl R²⁻¹ may be substituted by 0, 1, 2 or 3 substituents selected independently of one another from the group consisting of halogen, hydroxyl, oxo, nitro, cyano, trifluoromethyl, trifluoromethoxy, C₁-C₆-alkyl, C₁-C₆-alkoxy, hydroxycarbonyl, C₁-C₆-alkoxycarbonyl, amino, C₁-C₆-alkylamino, aminocarbonyl, C₁-C₆-alkylaminocarbonyl and phenyl,

R³ and R⁴ are hydrogen,

R⁵ and R⁶ are hydrogen,

R⁷ is 6- to 8-membered carbocyclyl,

it being possible for carbocyclyl R⁷ to be substituted by 0, 1, 2, 3 or 4 substituents selected independently of one another from the group consisting of C₁-C₆-alkyl,

R⁸ is C₁-C₄-alkyl,

it being possible for alkyl R^8 to be substituted by 0, 1 or 2 substituents R^{8-1} selected independently of one another from the group consisting of hydroxyl, amino, C_1 - C_6 -alkoxy, C_1 - C_6 -alkylamino, aminocarbonyl, C_1 - C_6 -alkylcarbonylamino, pyridyl, 1,2,4-triazol-1-yl and pyrazol-1-yl,

5 R^9 is hydrogen or C_1 - C_6 -alkyl,

it being possible for alkyl R^9 to be substituted by 0 or 1 substituent R^{9-1} selected from the group consisting of hydroxyl, C_1 - C_6 -alkoxy and amino,

and

R^{10} is hydrogen, C_1 - C_6 -alkyl, C_3 - C_6 -cycloalkyl or phenyl,

10 it being possible for alkyl R^{10} to be substituted by 0 or 1 substituent R^{10-1} selected from the group consisting of hydroxyl, C_1 - C_6 -alkoxy, C_1 - C_6 -alkylamino, C_5 - C_7 -cycloalkyl, 5- to 6-membered heterocyclyl, phenyl and 5- to 6-membered heteroaryl,

15 in which cycloalkyl, heterocyclyl, phenyl or heteroaryl R^{10-1} may be substituted by 0, 1, 2 or 3 substituents selected independently of one another from the group consisting of halogen, hydroxyl, nitro, cyano, trifluoromethyl, trifluoromethoxy, C_1 - C_6 -alkyl, C_1 - C_6 -alkoxy, hydroxycarbonyl, C_1 - C_6 -alkoxycarbonyl, amino, C_1 - C_6 -alkylamino, aminocarbonyl and C_1 - C_6 -alkylaminocarbonyl,

20 or

R^9 and R^{10} together with the nitrogen atom to which they are attached form a 5- to 6-membered heterocycle which may contain up to two further heteroatoms from the series N, O and/or S.

3. The compound of claim 1 or 2, characterized in that

25 R^1 is $-OR^8$ or $-NR^9R^{10}$,

R^2 is hydrogen or C_1 - C_4 -alkyl,

it being possible for alkyl R^2 to be substituted by 0 or 1 substituent R^{2-1} selected from the group consisting of methoxy, diethylaminocarbonyl, cyclopropyl, phenyl, phenoxy and pyridyl,

5 in which phenyl R^{2-1} may be substituted by 0, 1 or 2 substituents selected independently of one another from the group consisting of fluorine, chlorine, nitro, cyano, trifluoromethyl, methyl, methoxy and methyloxycarbonyl,

R^3 and R^4 are hydrogen,

R^5 and R^6 are hydrogen,

10 R^7 is bicyclo[2.2.1]heptyl,

it being possible for bicyclo[2.2.1]heptyl to be substituted by 0, 1, 2, 3 or 4 methyl groups,

R^8 is C_1 - C_3 -alkyl,

15 it being possible for alkyl R^8 to be substituted by 0 or 1 substituent R^{8-1} selected independently of one another from the group consisting of hydroxyl, dimethylamino, aminocarbonyl, methylcarbonylamino, pyridyl, 1,2,4-triazol-1-yl and pyrazol-1-yl,

R^9 is hydrogen,

and

20 R^{10} is hydrogen, C_1 - C_4 -alkyl, cyclopropyl or cyclopentyl,

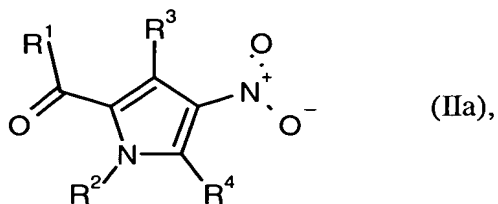
it being possible for alkyl R^{10} to be substituted by 0 or 1 substituent R^{10-1} selected from the group consisting of hydroxyl, methoxy, dimethylamino, phenyl, pyridyl and imidazol-1-yl,

in which phenyl R^{10-1} may be substituted by 0, 1 or 2 methoxy substituents.

25 4. A process for preparing a compound of the formula (I) of claim 1, characterized in that

according to process [A]

a compound of the formula



in which

5 R^1 is $-OR^8$,

R^8 is the optionally substituted alkyl indicated for R^8 in formula (I), and

R^2 , R^3 and R^4 are as defined in claim 1,

is reacted in the first stage with a reducing agent,

in the second stage optionally with a compound of the formula



in which

R^5 is as defined in claim 1 and

X^1 is halogen, preferably bromine or chlorine,

and in the third stage, in the presence of a carbonic acid derivative, with a

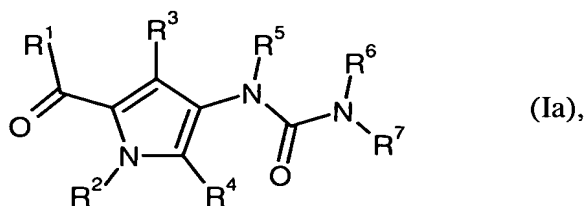
15 compound of the formula



in which

R^6 and R^7 are as defined in claim 1,

to give a compound of the formula



in which

R^1 is $-OR^8$,

R^8 has the definition as in formula (IIa), and

5 R^2, R^3, R^4, R^5, R^6 and R^7 are as defined in claim 1,

or

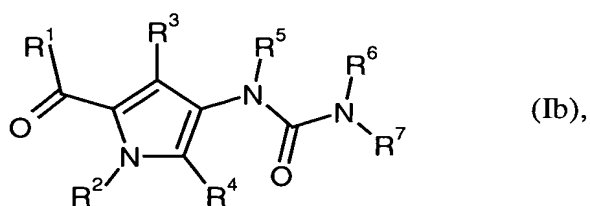
according to process [B]

a compound of the formula (Ia)

in which

10 R^8 is methyl or ethyl,

are reacted in the presence of a base to give a compound of the formula



in which

R^1 is $-OR^8$,

15 R^8 is hydrogen, and

R^2, R^3, R^4, R^5, R^6 and R^7 are as defined in claim 1,

or

according to process [C]

a compound of the formula (Ib) is reacted with a compound of the formula



in which

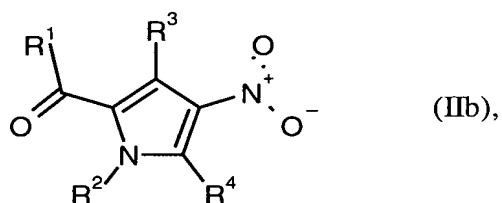
5 R^1 is as defined in claim 1,

in the presence of dehydrating reagents to give a compound of the formula (I),

or

according to process [D]

a compound of the formula



10

in which

R^1 is $-NR^9R^{10}$, and

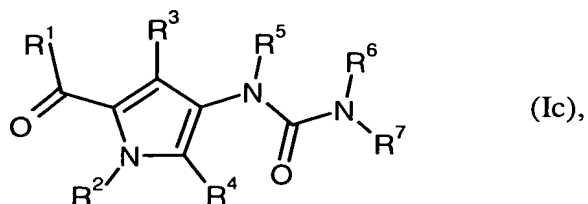
R^2 , R^3 , R^4 , R^9 and R^{10} are as defined in claim 1,

is reacted in the first stage with a reducing agent,

15 in the second stage optionally with a compound of the formula (III)

and in the third stage, in the presence of a carbonic acid derivative, with a compound of the formula (IV)

to give a compound of the formula



in which

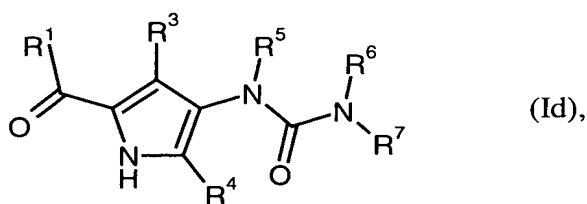
R^1 is $-NR^9R^{10}$, and

$R^2, R^3, R^4, R^5, R^6, R^7, R^9$ and R^{10} are as defined in claim 1,

5 or

according to process [E]

a compound of the formula



in which

10 R^1, R^3, R^4, R^5, R^6 and R^7 are as defined in claim 1,

is reacted with a compound of the formula



in which

R^2 is as defined in claim 1, and

15 X^2 is halogen, preferably bromine or chlorine,

to give a compound of the formula (I).

5. The compound of any one of claims 1 to 3 for the treatment and/or prophylaxis of diseases.
6. A medicament comprising a compound as in any one of claims 1 to 3 in combination with at least one inert, nontoxic, pharmaceutically appropriate excipient.
7. The use of a compound of any one of claims 1 to 3 for producing a medicament for the treatment and/or prophylaxis of viral infections.
8. The use of claim 7, characterized in that the viral infection is an infection with human cytomegalovirus (HCMV) or with another representative of the group of Herpes viridae.
9. The medicament of claim 6 for the treatment and/or prophylaxis of viral infections.
10. A method of controlling viral infections in humans and animals by administering an antivirally active amount of at least one compound of any one of claims 1 to 3 or of at least one medicament of claim 6, 7 or 8.